

SALYUKOV, P.A., kand. biol. nauk; VERNIGOR, V.A., kand. sel'khos. nauk; KORMANOVSKAYA, M.A., kard. sel'khos. nauk; GOLODNOV, A.V.; SKOROBOGATOV, Yu.A., mladshiy nauchnyy sotr.; MALLITSKIY, V.A., kand. sel'khoz. nauk; CRABHCHIN, B.V., kand. sel'kips, nauk; PONOMAREV, P.F., kand. tekhn. nauk; BARMINTSEV, Yu.N., doktor sel'khoz. nauk; NECHAYEV, I.N., mlad. nauchnyy sotr; POZDNYAKOV, P.M., kand. biol. nauk; KOVIN'KO, D.A., kand. biol. nauk; BALANINA, O.V., kand.sel'-khoz. nauk; MOISEYEV, K.V., kand. sel'khoz. nauk; ROMANOV, P.F., kand. veter. nauk; PAL'COV, A.A., kand.veter. nauk; ANAN'YEV, P.K., kand. veter. nauk; VASIL'YEV, B.M., kand. sel'khoz. nauk; ABDULLIN, V.A., kand. ekon. nauk; GALIAKBEROV, N., laureat Gos.premii, kand. sel'khoz. nauk, red.; GUSEVA, N., med.; NAGIBEN, P., tekhn. red. [Reference book for zootechnicians] Spravochnik zootekhnika. Pod red. N. Galiakberova. Alma-Ata, Kazsel'khozgiz, 1963. (MIRA 16:5) 492 p. (Kazakhstan--Stock and stockbreeding)

USSR/Form Animals. Honey Boo

0-6

Abs Jour : Rof Zhur - Biol., No 8, 1958, No 35767

Author

 $I_{n.st}$ 

: Not Given
: Orespreeding of the Local Hancy Bees of Kazakhatan with the Mountain Caucasian Breed (Skruchchivaniyo mostnykh pehel Title

Kazakhstana s gornymi kevkazakimi)

Orig Fub : Fchelovodstvo, 1957, No 9, 24-29; Seo RZhBiel, 1957, No 24, rof. 103357

Abstract : No abstract

Card : 1/1

MUISTEV, R. V.

Bue Culture - Queen Bearing
Time for shipping queen bees Fohelovodstvo 29, no. 4, April 1952

9. Monthly List of Russian Accessions, Library of Congress, August 1973, Unc.

MOISETEV, K.N.

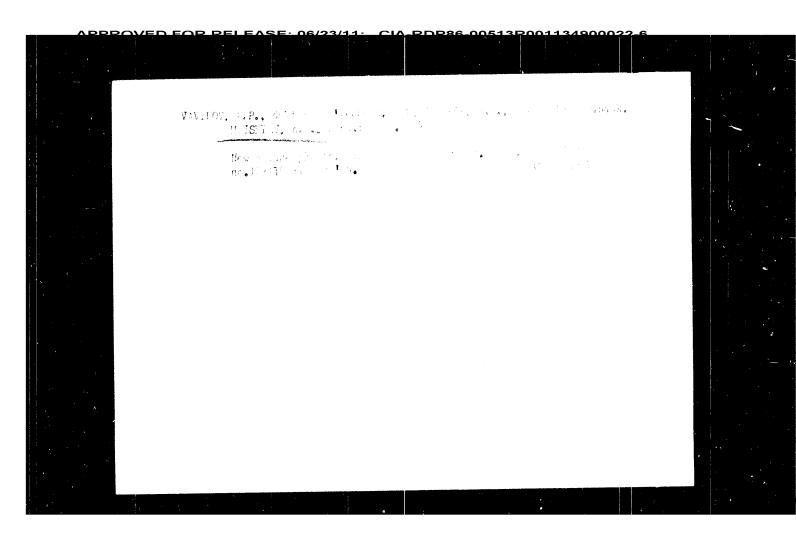
Fisheries - Accounting

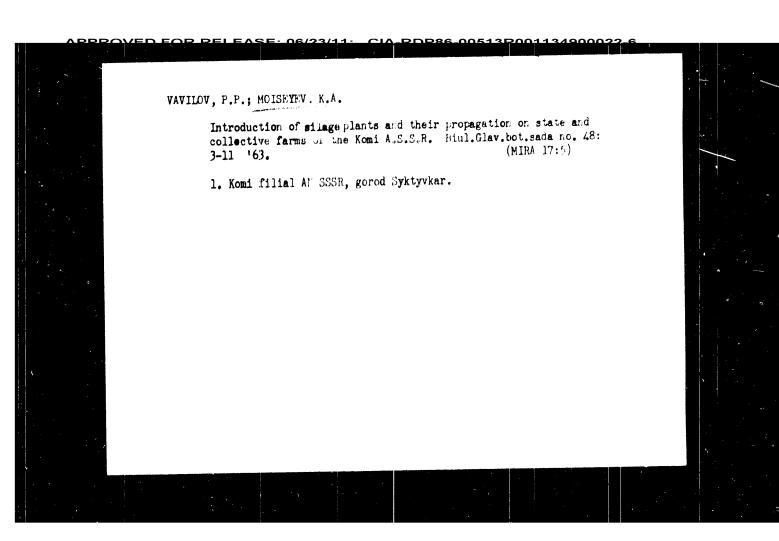
Putting the shop on a completely self-financing basis. Ryb. Rhoz. 28 no. 7, 1972.

Monthly List of Russian Accessions. Library of Congress. November 1952. Unclassified

MOISEYEV, K.I., student; SIVUKHA, M.I., student; SHUL'KIN, Yu.P., student Investigating the endurance limit of shipbuilding steel to bending on a level plane together with axial deformation. Trudy LKI no.29: 221-224 159. (MIRA 14:7) 1. Leningradskiy korablestroitel'nyy institut, korablestroitel'nyy fakulitet. (Plates, Iron and steel-Testing)

MOISEYEV, K. I. MOISEYEV, K. I. "On the methodology of reconstructing the conjunctiva", Sbornik nauch. trudov vrachey Mordov. ASSR, Saransk, 1948, p. 47-49 SO: U-3:61, 10 April 53 Letopis - Zhurnal 'nykh Statesy No. 11, 1949)

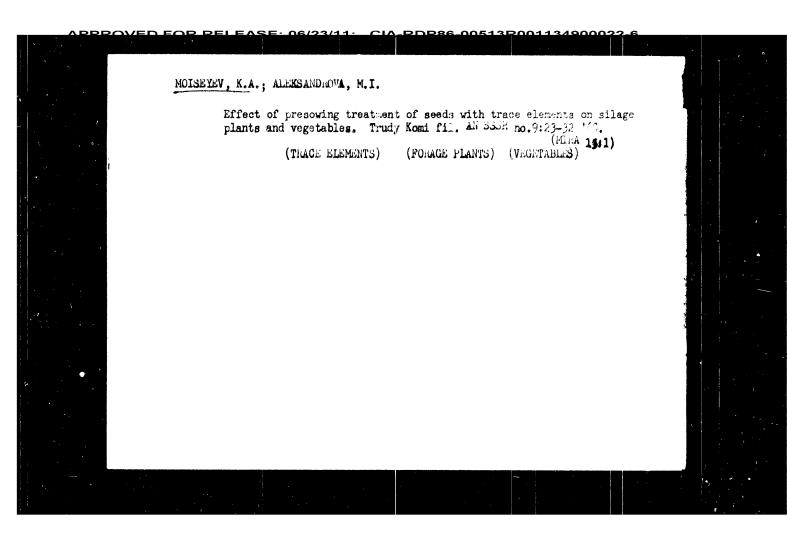




VAVILOV, P.P., kand. sel'khos. nauk, glav. red.; LAZAREV, N.A., kand. sel'khos. nauk, sam. glav. red.; GALAS'YEV, V.A., red.; MOISEREY, K.A., kand. blol. nauk, red.; TARKOVA, V.N., kand. blol. nauk, red.; TARASENKOV, G.H., kand. geogr. nauk, red.; TON, D.S., kand. ekon. nauk, red.; TIKHDNOVA, N.V., red.iad-va; WOUVINA, V.M., takhn. red.

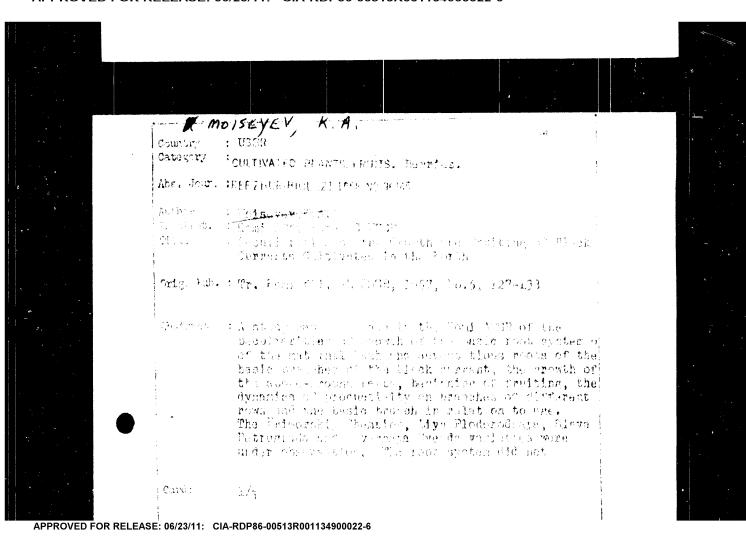
[Forests and the lumbering industry in the Komi A.S.S.R.]
Less 1 lesnaia promyshlemment' Komi ASSR. Moskva, Goslesbundsdat, 1961. 394 p. (MIRA 16:4)

1. Akademiya nauk SSSR. Komi filial, Syktyvkar. (Komi A.S.S.R.--Forests and forestry)



Country Catagory CULTIVATED PLANTS, FRUITS Abs. Jour. : PEF ZHUR BIOL., 21,1958, NO 96145 Author Tastitut. : Title Orig. Can. : Abstract menatrate the soil desper than 50 cm. The basic most active part of the root system (up to 75%) occurred in relation to soil moisture 20-40 om deep. The adventitious root system surpassed the basic roots in weight by 40-89%. In the fifth year of life the adventitious root number began to decrease, the harvest was also considerably reduced and the berries turned tiny. In the fourth year the branches bearing berries produced the greatest yields. It is recommended that the black current 2/3 Carú: 158

## APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900022-6



\$57-4-58-8-8-868 AUTHOR: Moiseyev, K. Attention ! There Are Oil-Fields Undermoath ! (V: Imanage ! TITLE: V glubine zalegayet neft!) Znaniye-sila, 1958, Nr 8, p 1 (USUR) PERIODICAL: Soviet oil-prospecting geologists are now using nuclear ABSTRACT: physics and electronics. A team of young scientists from the Professor Fedor Aleksyevich Alekseyev laboratory at the Institut nefti Akademii nauk SSSR (U11 Institute of the USSR Academy of Sciences) has developed, a gamma ray radi meter, used to locate oil deposits. Candidate of Geological and Mineralogical Sciences, V.I. Yermakov apperts that the new gamma ray radiometer will be more sensitive than former devices and can be used in airplanes and subscrines. There is 1 drawing. 1. Geophysical prospecting--USSR 2. Radiometers--Applications 3. Nuclear physics--Applications 4. Electronic equipment -- Applications 5. Petroleum--Production Card 1/1

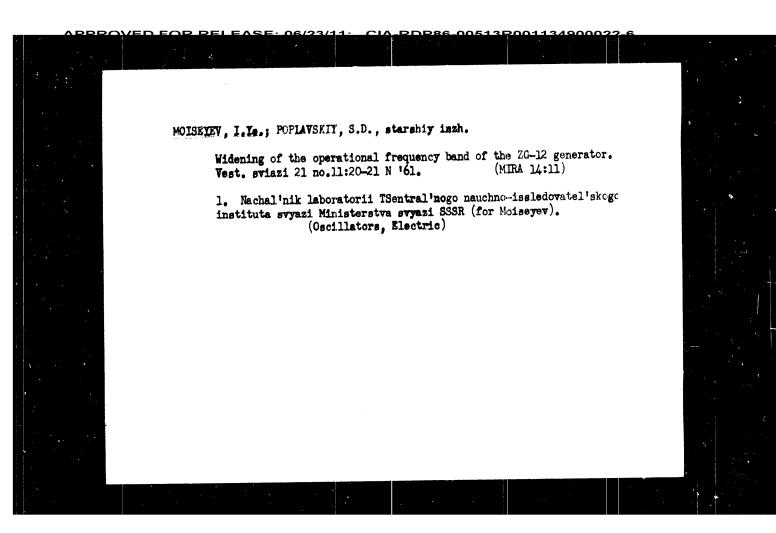
AUTHOR: Moiseyev, K. SOV-4-58-7-12/22 TITLE: The First Peaceful Function of Tritium (Pervaya mirnaya professiya tritiya) PERIODICAL: Znaniye - sila, 1958, Nr 7, p 23 (USSR) ABSTRACT: Tritium - an isotope of hydrogen - has till now been used only for military purposes. Recently Soviet scientists discovered a possible peaceful function for tritium. The movement of subsurface water had not been investigated satisfactorily until a number of scientists of the laboratory of the Institute of Petroleum of the USSR Academy of Sciences headed by Member-Correspondent C.N. Flerov and Professor F.A. Alekseyev successfully used tritium as an "indicator" of the movement of the water below the petroleum layer. In 1956, tritium was applied for the first time for "marking" water by the Groznyy oil industry. There is one diagram. Card 1/1

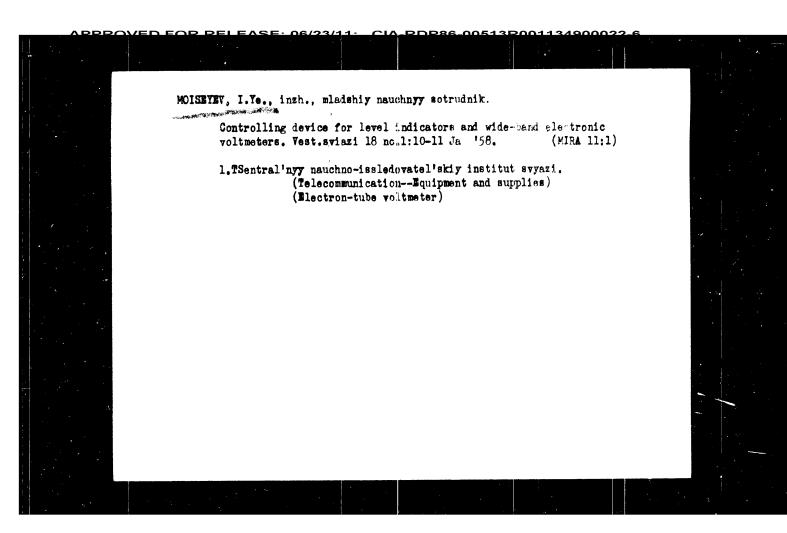
Moiseyev, 1.Ye.; Poplavskiy, S.D.

Widening of the working band of frequencies of the generator and indicator of the KIP2-300 instrument kit. Vest. sviasi 23 ns.7: 17-18 Jl '63.

(MIRA 17:2)

1. Nachal'nik laboratorii Tsentral'nogo nauchno-issledovatel's-kogo instituta svyazi Ministerstva svyazi SSSR (for Moiseyev). Starshiy insh. Tsentral'nogo nauchno-issledovatel'skogo instituta svyazi Ministerstva svyazi SSSR (for Poplavskiy).





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Investigation of some...

s/078/61/006/003/006/022 B121/B208

extraction of plutonium(IV) cupierronate from sulfuric acid solutions with chloroform was studied. The composition of the extractable complex is Pu(C6H5N2O2)4. Extraction of trivalent plutonium by chloroform from sulfuric and nitric acid solutions in the presence of cupferron also takes place in the form of  $Pu(C_6H_5N_2O_2)_4$ . Flutonium(IV) cupferronate is less extracted with CCl<sub>4</sub> than with CHCl<sub>3</sub>. At  $20 \pm 1^{\circ}C$ , the following equation holds for the constant K eq in the system  $PuR_4 - HR - CHCl_3$ :

and 8 references: 7 Soviet-bloc and 1 non-Soviet-bloc.

SUBMITTED: July 20, 1960

Card 3/3

**S**/078/61/006/003/006/022 **B121/B208** 

Investigation of some...

valent plutonium with cupferron takes place according to the following equation:  $Pu_2(SO_4)_3 + 8 C_6H_5N_2O_2NH_4 + H_2SO_4 = 2 Pu(C_6H_5N_2O_2)_4 + 4 (NH_4)_2SO_4 + H_2$  In the precipitation of hexavalent plutonium with cupferron in acid solutions, plutonium(VI) is reduced to plutonium(IV) which is precipitated as  $Pu(C_6H_5N_2O_2)_4$ . The solubility of plutonium cupferronate

precipitated as 
$$Pu(C_6^{H_5}N_2^{O_2})_4$$
. The solution of parameters was determined by the method of I. V. Pyatnitskiy (Ref. 6):
$$K_p = \frac{[H^+]^4}{[Pu^{IV}][HR]^4} = 6.6 \cdot 10^{13}$$

$$L_p = [Pu^{IV}][R^-]^4 = 1.2 \cdot 10^{-31}.$$
The solution of parameters are solutions of the precipitation of the precipitation of the precipitation.

It was found in numerous experiments that the precipitation of plutonium cupferronate from 1.5 - 3 M sulfuric acid solutions in the presence of 2.5 - 3.5 mg/ml of excess oupferron gives rise to a complete plutonium separation from equimolecular quantities of uranium, chromium, manganese, aluminum, silver, nickel, and lanthanum. Also a quantitative separation of plutonium from americium is achieved under equal conditions. The

Card 2/3

S/078/61/006/003/006/022 B121/B208

21,3100

AUTHORS:

Moiseyev, I. V., Borodina, N. N., Tsvetkova, V. T.

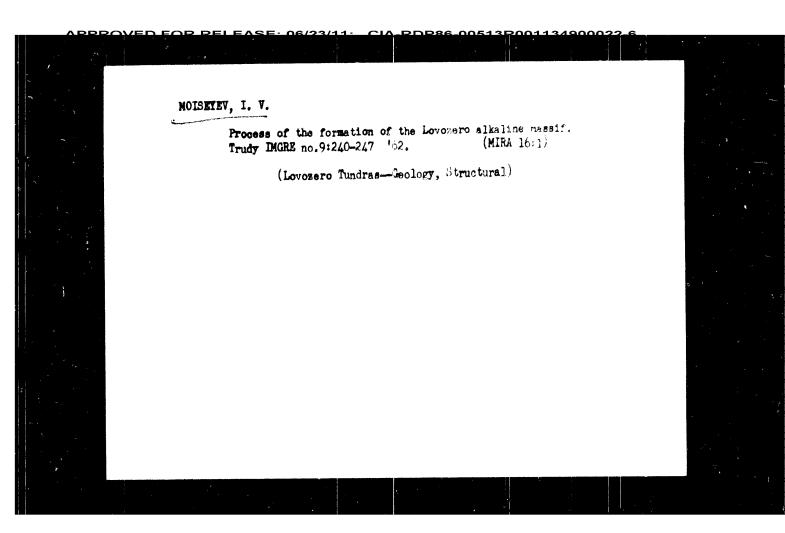
TITLE:

Investigation of some physico-chemical properties of plutonium cupferranate

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 6, no. 3, 1961, 543-548

TEXT: The authors studied the composition, sclubility, and extraction of the reaction products of tri-, tetra-, and hexavalent plutonium with cupferron, since no data are available on their physico-chemical properties. The composition of the precipitate in the precipitation of plutonium with cupferron was always found to correspond to tetravalent plutonium, irrespective of the plutonium valence in the initial solution. The composition of plutonium(IV) cupferronate was determined by potentiometric titration of sulfuric acid solutions of tetravalent plutonium with cupferron solutions. When precipitating trivalent plutonium with cupferron, the latter is not consumed by oxidation, but the plutonium(III) ion is oxidized in the solution and then forms the stable complex compound Pu(C<sub>6</sub>H<sub>5</sub>N<sub>2</sub>O<sub>2</sub>)<sub>4</sub> in the presence of cupferron. Precipitation of tri-

Card 1/3



Uranium, Methods of Detection

bulk of the material is on the determination of uranium by gravimetric, volumetric, photometric, electrometric, and radiometric methods. One chapter is devoted to the determination of uranium by the luminescence method. No personalities are mentioned. References accompany each of the chapters.

TABLE OF CONTENTS:

Foreword

Ch. I. Physical and Chemical Properties of Uranium and of Some

. I. Physical and Chemical Properties of Uranium and of Some of Its Compounds (V. K. Markov) 5
1. Occurrence of uranium in nature 5
2. Uranium isotopes 6
3. Physical properties of metallic uranium 7
4. Chemical properties of uranium 8
5. Uranium oxides 11

Card 2/11

## PHASE I BOOK EXPLOITATION

SOV/5117

Markov, V. K., A. V. Vinogradov, S. V. Yelinson, A. Ye. Klygin, and I. V. Moiseyev

Uran, metody yego opredeleniya (Uranium, Methods of Detection)
Moscow, Atomizdat, 1960. 262 p. Errata slip inserted.
6,000 copies printed.

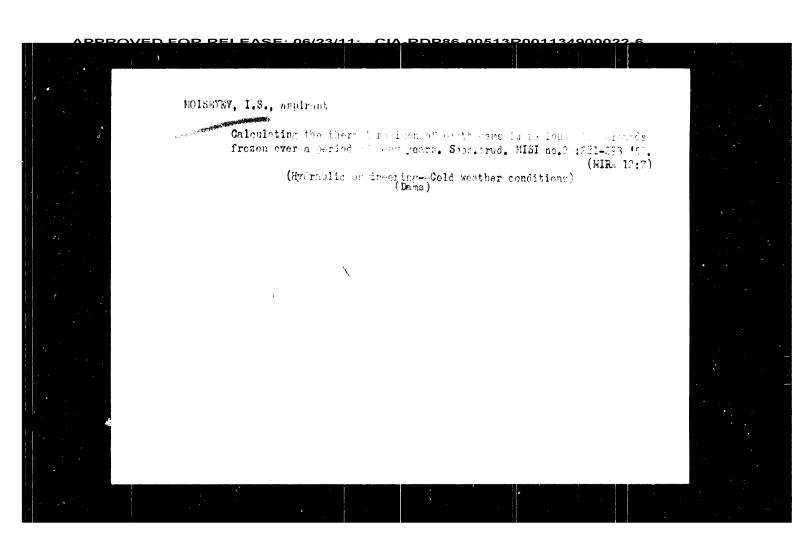
Ed. (Title page): V. K. Markov, Doctor of Chemical Sciences; Ed.: Ye. I. Panasenkova; Tech. Ed.: Ye. I. Mazel'.

PURPOSE: This book is intended for technical personnel of the uranium industry.

COVERAGE: The book contains systematized material on the determination and separation of uranium. Chemical, luminescence, and radiometric methods for qualitative detection of uranium in various media are described in detail. The description of methods for the separation of uranium includes, among others, precipitation, extraction, and cation and anion exchange. The

Card 1/11\_\_

ECIS: V, I. V. on: b-3201, at Arr. 1953, (Leteján Clauma Christian Cyjon, 192) MAKSIMOV, Semen Andreyevich; GOL'TSBERG, I.A., redaktor; MOISEYEV, I.T., redaktor; SOLOVEYCHIE, A.A., tekhnicheskiy redaktor [Meteorology in agriculture] Meteorologiia i sel'skoe khoziaistvo. Izd. 3-e, ispr. i dop. Leningrad, Gidrometeorologicheskoe izd-vo. 1955. 141 p. (MLRA 9:1) (Meteorology, Agricultural)



10(4), 14(0)

507/98-59-0-14/00

AUTHOR:

Moiseyev, I.S., and Klimenko, M.G., Engineers

TITLE:

Ground Compaction by Self-Propelled Dump Trucks

"MAZ-525"

PERIODICAL:

Gidrotekhnicheskoye stroitel'stvo, 1959, Mr 9

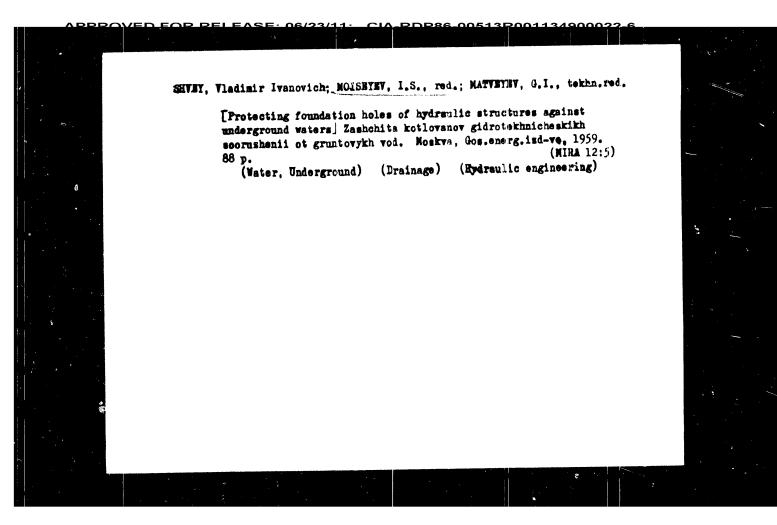
p 46 (USSR)

ABSTRACT:

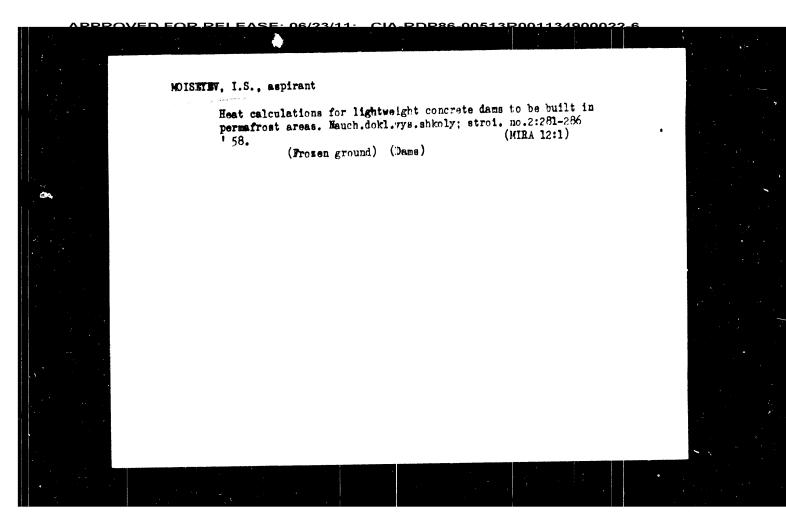
The author describes the first Soviet construction of an earth dam compacted exclusively by rolling of self-propelled dump trucks, which serve at the same time for earth transportation. The experiment was carried out during construction of the 12,000.000 cu m earth dam for the Irkutsk GES; for rolling the "MAZ-525" self-propelled dump trucks, the weight of which, when loaded, amounts to 50 tons. The earth was placed in 1-1.5-m layers; a planned system of earth transportation, which enabled an optimum compaction, was applied. There are 1 photograph and 2 graphs.

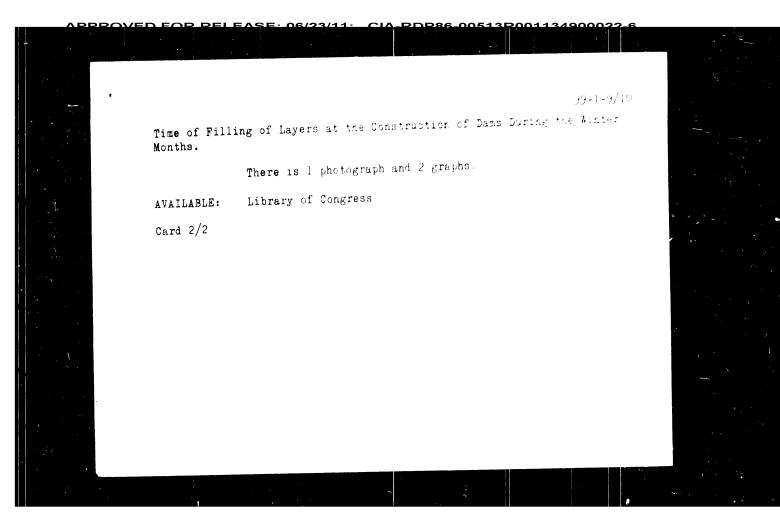
Card 1/1

MOISEYEV, I.S. Degradation of the frozen state of earth dams and permafrost foundations. Nauch.dokl.vys.ahkoly; stroi. no.2:229-234 159. (MIRA 13:4) 1. Rekomendovana kafedroy gldrotekhnicheskikh sooruzheniy Moskovskogo inshenerno-stroitel nogo instituta imeni V.V. Kuybysheva. (Fromen ground) (Foundations) (Dams)



MOISETEV, I. S. Cand Tech Sci -- (diss) "Methods of thermal calculation of frozen-earth disea." Mos, 1959. 14 pp (Min of Higher and Secondary Specialized Education RSFSR. Mos Order of Labor Red Banner Construction Engineering Inst im V. V. Kuybyshev), 200 copies (KL, 50-59, 127)





MOISEVEV, I.S.

99-1-9/10

AUTHOR:

Moiseyev, I.S., Engineer

TITLE:

Time of Filling of Layers at the Construction of Dams During the Winter Months (O srokakh perekrytiya kart otsypki pri vozvedenii nasypnykh plotin zimoy)

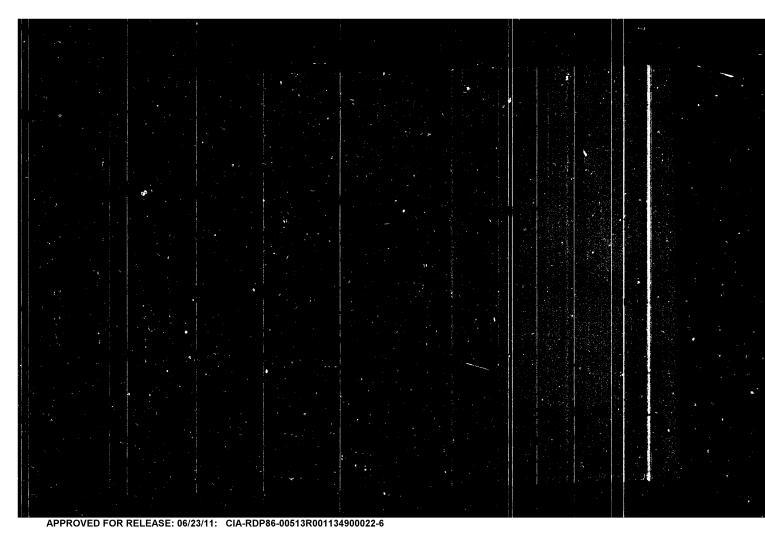
PERIODICAL:

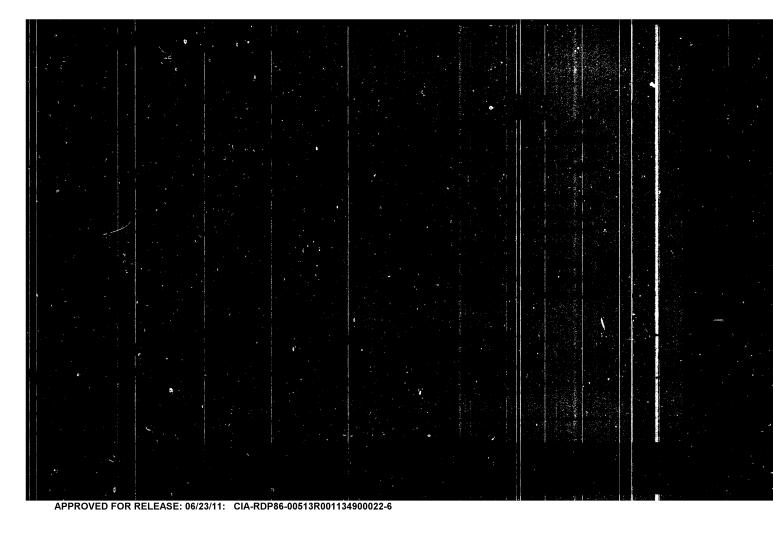
Gidrotekhnika i Melioratsiya, 1958, # 1, pp 59-60 (USSR)

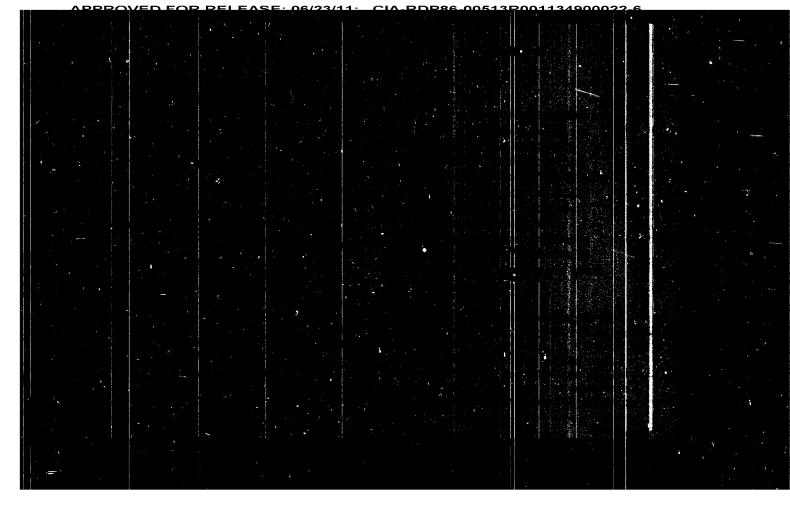
ABSTRACT:

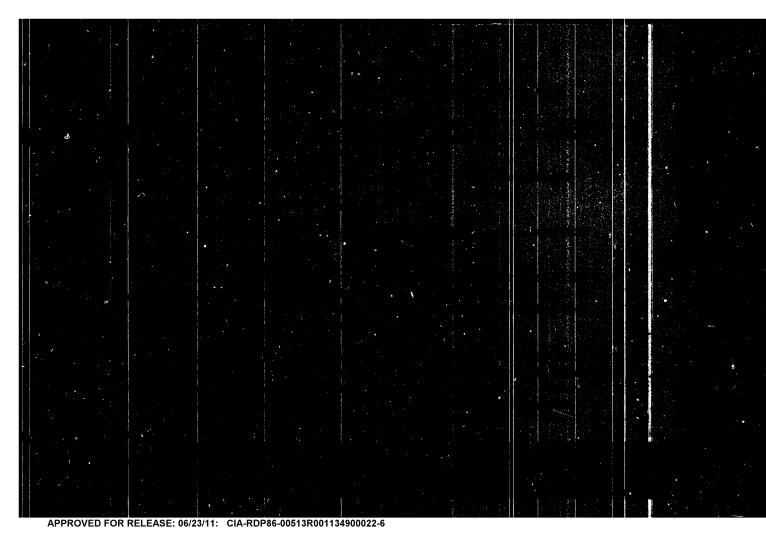
Earth dams composed of gravel-sand dumped in 1.5 m thick horizontal layers can be built under any climatic conditions Construction time is shortened and mechanical equipment is used more economically when filling operations are conducted throughout the year. As the filling of one layer generally takes 20 - 30 days, the entire layer is almost completely frozen by the time its respective section is finished. The author examined the process and the effects of freezing for the purpose of establishing the maximum periods for filling individual sections. The author developed several equations and graphs based on various factors, among which are soil humidity, mean air temperatures during the freezing period. etc. It can be seen from the graphs that the depth of freeing at constant air temperature decreases with increased humidity of the ground.

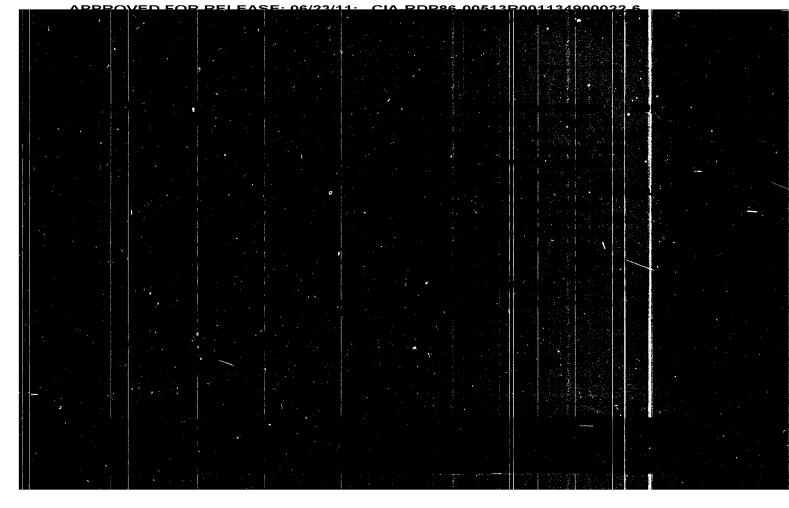
Card 1/2

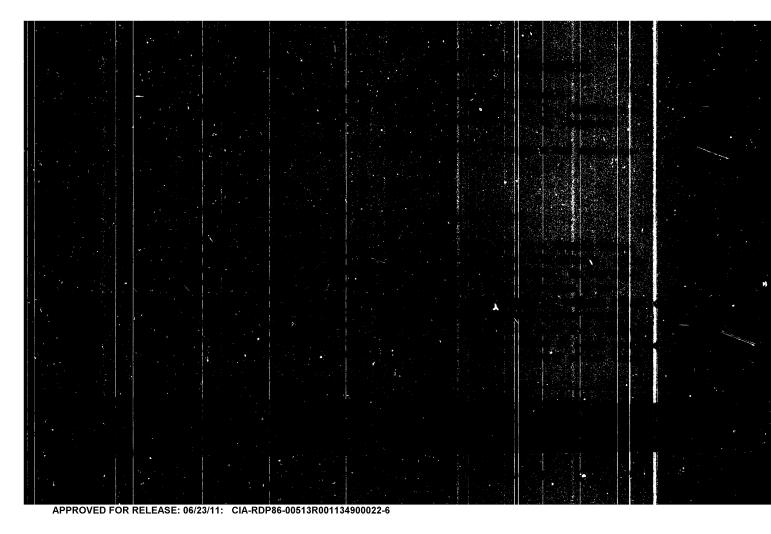


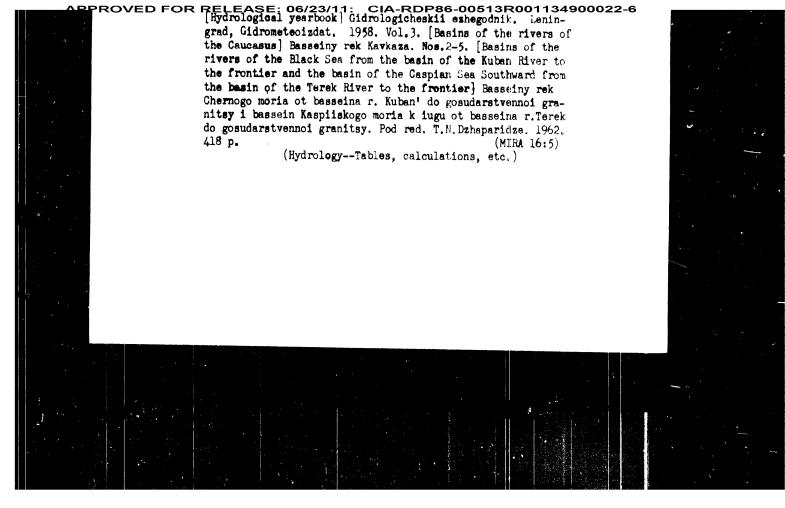












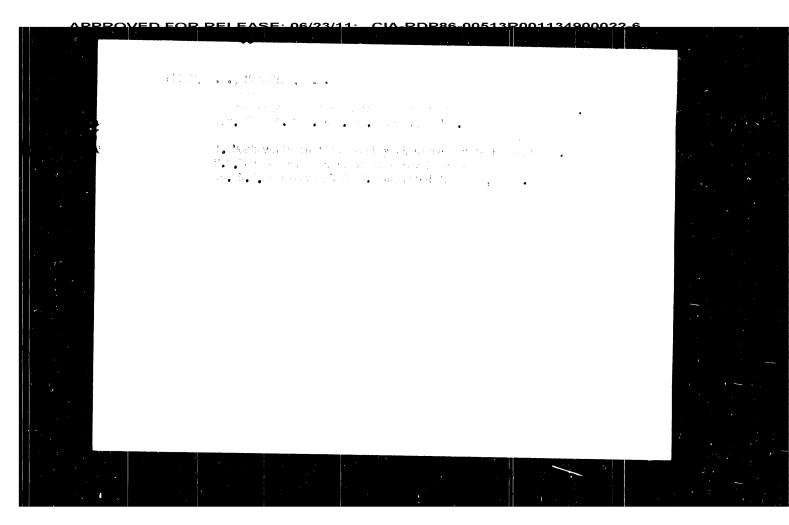
KHRAFOVITSKAYA, M.K., red.; MOISMIEV, I.N., red.; VOLKOV, E.V., tekhn. red.

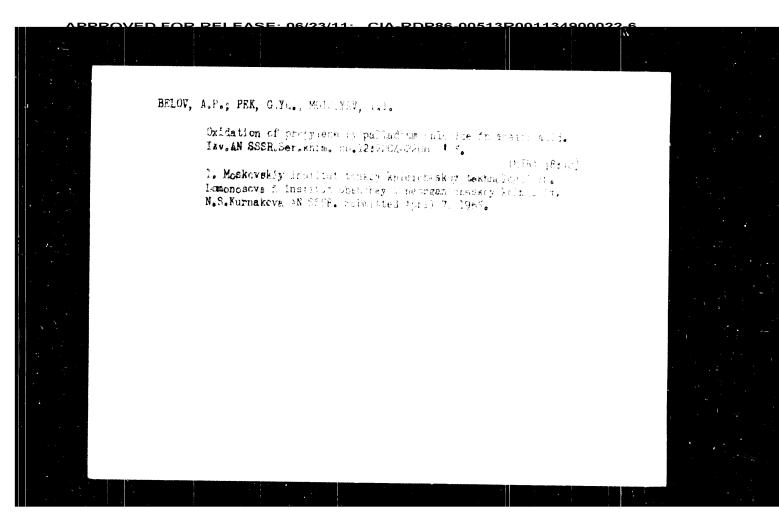
[hydrological yearbook] Gidrologiche kii ezhegoanik. lenningrad, Gidrometeoladat. 1957. Vol.6. [basin of the Kera Sea (western part)] Bansein Karshope norda (rajaumaia chast) Nos.-03. [Ob: Malver and its basin to the estuary of the Irtysh River] Meka Ob! 1 ee basean uo untitar.

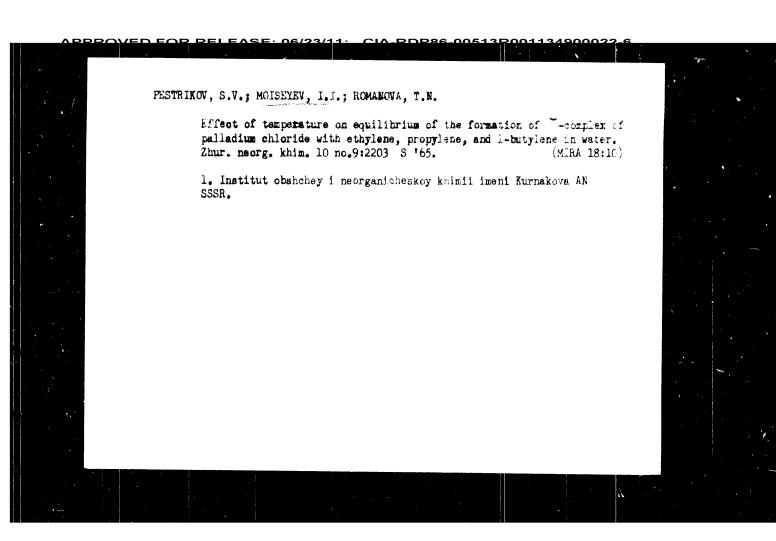
Irtysha. Pod red. N.K.Khrapovitskoi. 1962. 32% p.

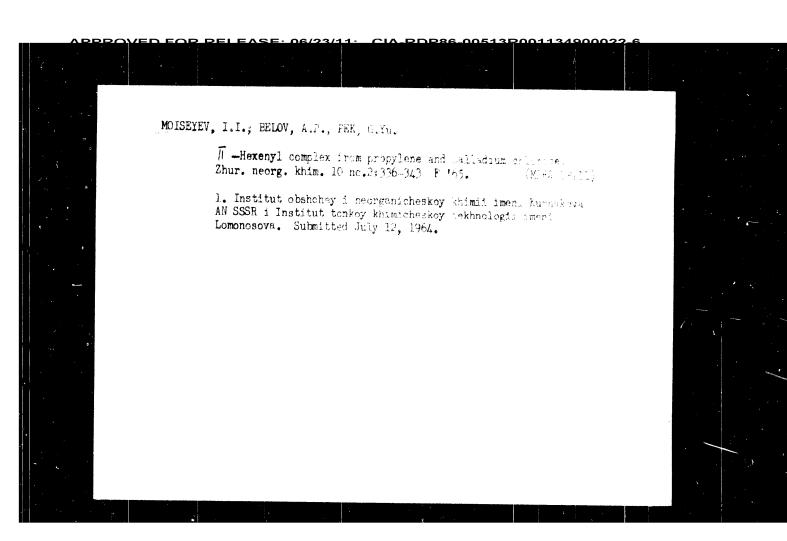
(Mika 1612)

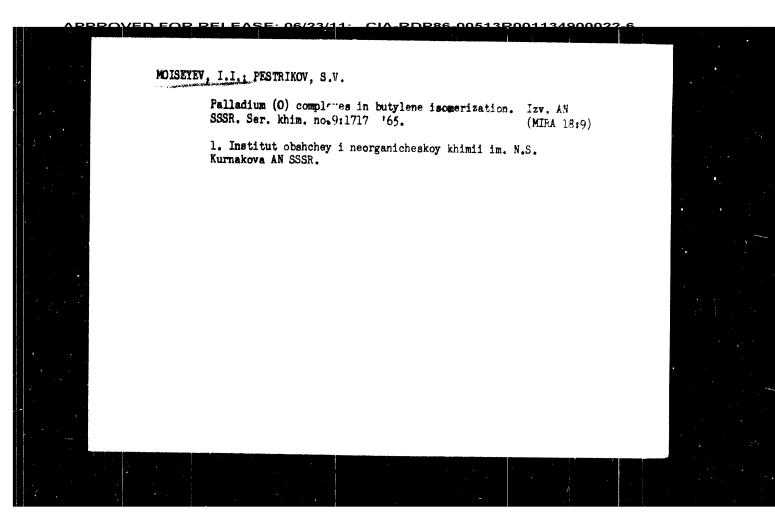
(Ob: Valley-Hydrology-Tobles, calculations, etc.)









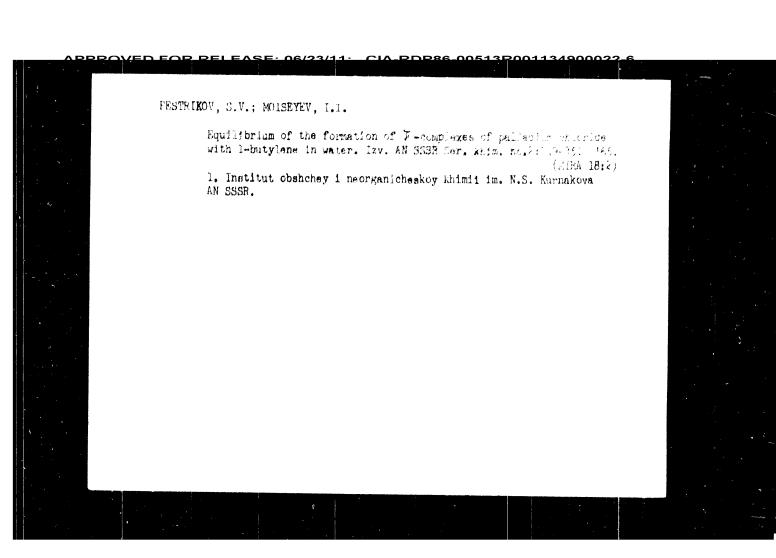


MOISEYEY, I.I.; VARGAFTIK, M.N.

Carbonium ions in the reactions of oxidation of chaffes by palladium chloride, Irv. AN SSSR, Ser, khim. no.41755-766

165.

1. Institut obshchey i meorganicheskoy khimii im. M.S. Kurnakova AN SSSR.



ZAKHAROVA, I.A.; MOISEYEV, I.I. Cyclopropane derivative of palladium. Izv. AN SSSR. Ser. khim. no.10:1914-1915 0 '64. (MIRA 17: (MIRA 17:12) 1. Institut obshchey i neorganicheskoy khimii im. N.S. Kurnakova AN SSSR.

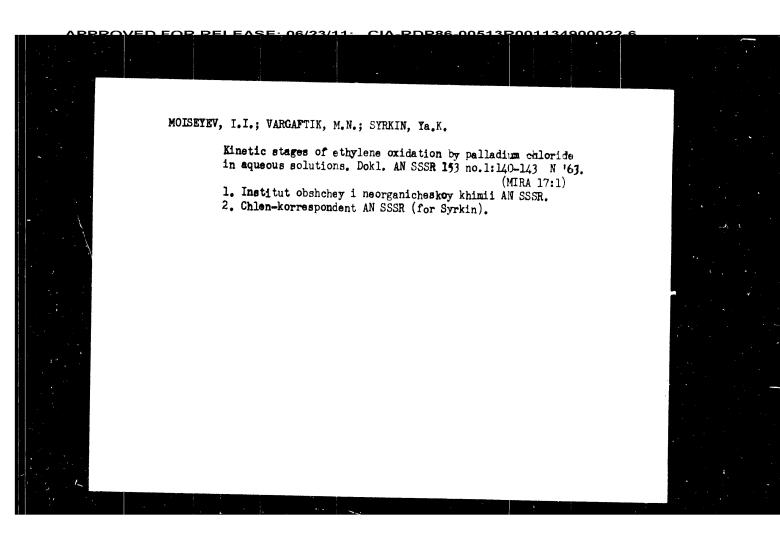
MOISEYEV, I. I.; VARGAPTIK, M. N.; SYRKIN, Ya. K.

New#-allyl complex of palladium. Izv AN 33SR Ser Ehim no. 4:
775 Ap '64. (KIPA 17:5)

The Complex of palladium with triphenylcyclopropenyl. Ibid.:775776.

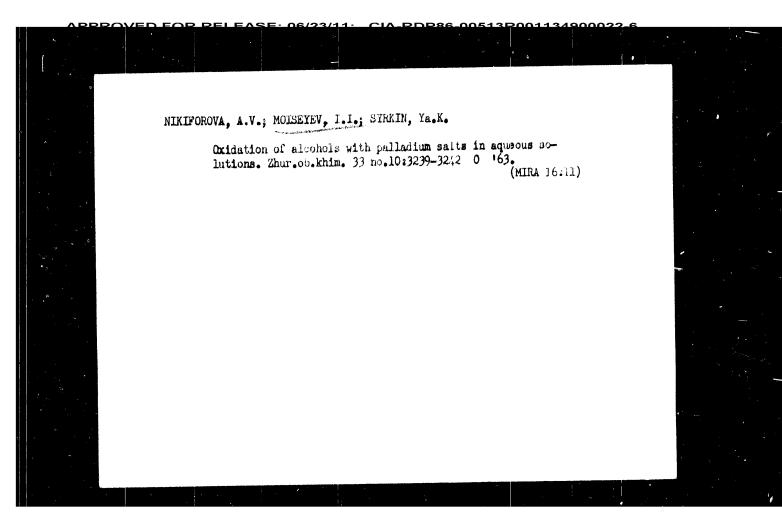
1. Institut tonkoy khimicheskoy tekhnologii im. M. 7. lomonosova
i Institut obshchey i neorganicheskoy khimii im. N. S.

Kurnakova AN SSSR.



MOISEYEV, I.I.; VARGAFTIK, M.N.; SYRKIN, Ya.K. Equilibrium of complex-forming process between palladium chloride and ethylene in aqueous solutions. Dokl. AN SSSR 152 no.1:147-150 S 163. (MIRA 16:9) (MIRA 16:9) 1. Institut obshchey i neorganicheskoy khimii im. N.S. urnakova AN SSSR. 2. Chlen-korrespondent AN SSSR (for Syrkin).

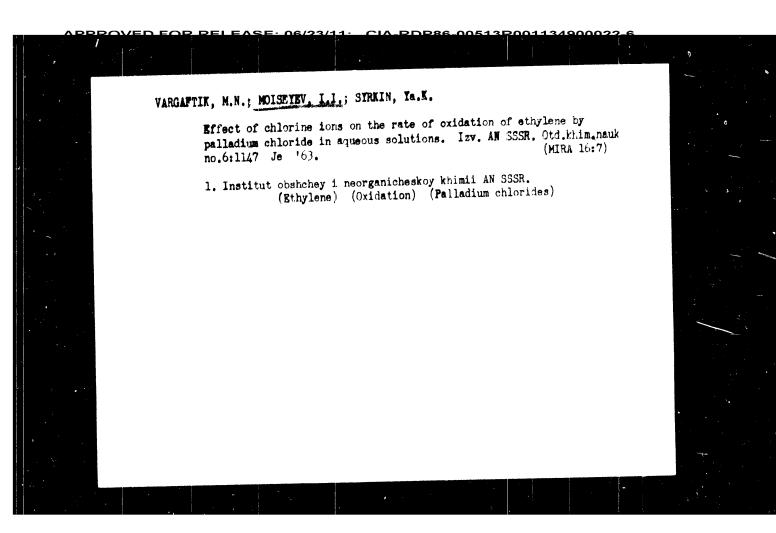
(Palladium compounds) (Ethylene)



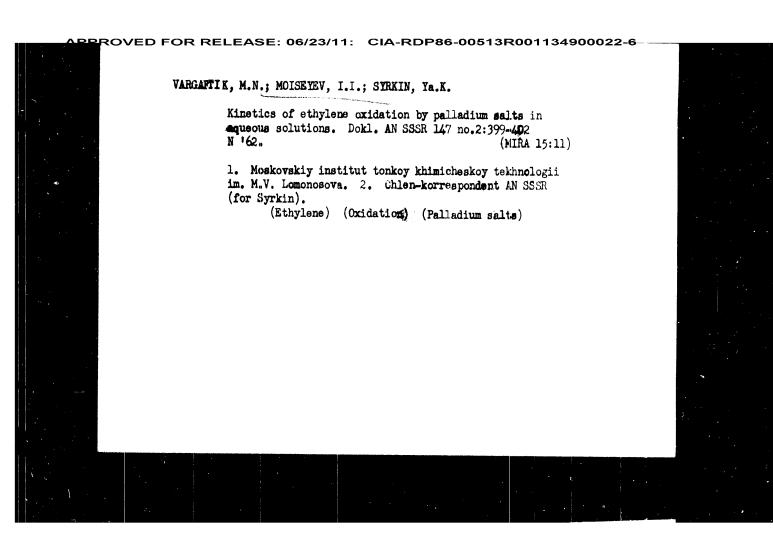
MOISETEV, I.I.; BELOV, A.P.; SYRKIN, Ya.K.

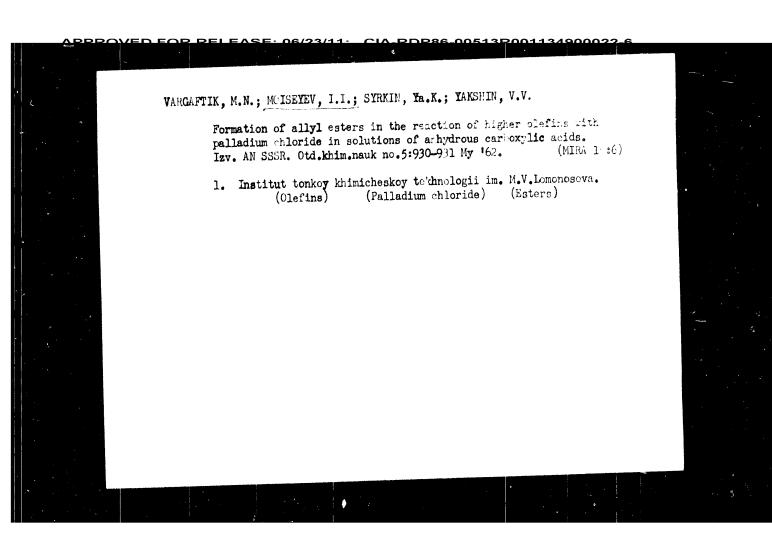
Interaction between propylene and palladium chloride in scelic acid solutions. Isv.AN SSSR.Ser.khim. no.3:1527-1528 Ag (6). (MRA 16:7)

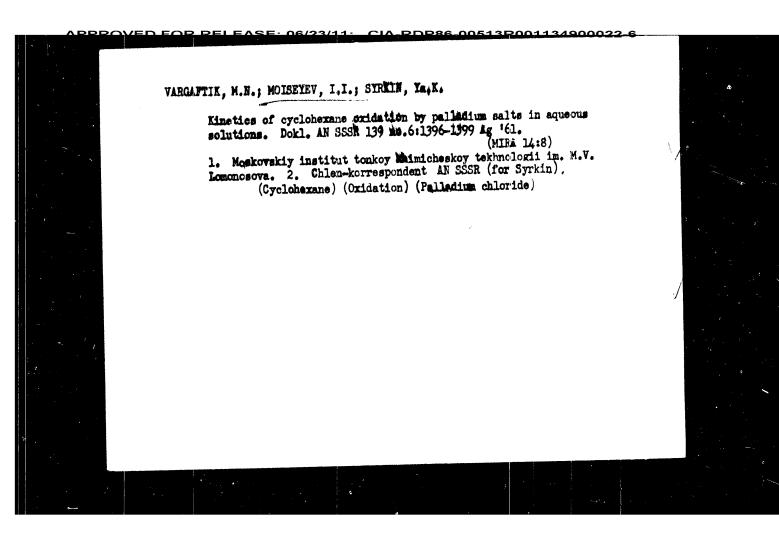
1. Institut obshchey i neorganicheskoy khimii in. N.S.Kurnskova AN SSSR i Institut tonkoy khimicheskoy tekhnologii im. Lamonosova. (Propene) (Palladium chloride)

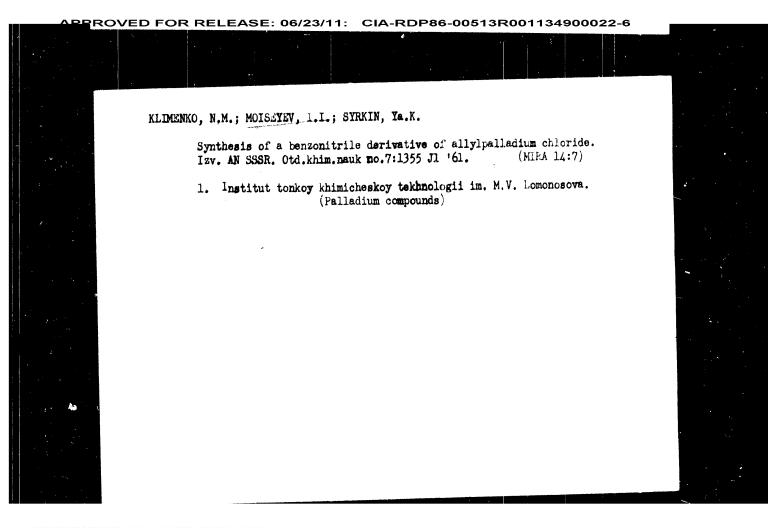


MOISEYEV, I.I.; VARGAFTIK, M.N.; SYRKIN, Ya.K. Kinetic isotope effect of ethylene oxidation by palladium chloride. Izv. AN SSSR. Otd.khim.nauk no.6:1144-1145 Je '63. (MIRA 16:7) (MIRA 16:7) 1. Institut tonkoy khimicheskoy tekhnologii imeni Lomonosova.
(Ethylene) (Oxidation) (Palladium compounds)









The Mechanism of the Heaction of Palladium Salta S/020/60/133/02/25/069
With Olefins in Hydroxyl-containing Solvents B016/B060

the other assumption of reaction (2) representing the first stage of decomposition, are held to be less probable. There are 4 references: 2 Soviet, 1 American, and 1 German.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii im.

M. V. Lomonosova (Moscow Institute of Fine Chemical

Technology imeni M. V. Lomonosov)

SUBMITTED: April 23, 1960

81862

The Mechanism of the Reaction of Palladium Salts S/020/60/133/02/35/068 With Olefins in Hydroxyl-containing Solvents B016/B060

oxidizing the palladium developed in the reaction, reaction (3) can be evidently used for the preparatory stage in the production of vinyl esters. The overall reaction in the presence of benzoquinone (see scheme) shows that also palladium is oxidized besides reaction (3). The authors' experiments further revealed that the above-mentioned complex reacts readily with alcohol and yields acetal as the main product (4). In the presence of p-benzoquinone, the reduction of PdCl<sub>2</sub> is accompanied

by an oxidation of metallic Pd by way of ethylene in alcoholic solutions. This makes it possible for this reaction to be utilized in the direct production of acetals from olefins (see scheme). Also copper-salt solutions can be used as oxidizers in alcoholic solutions. The data obtained confirm the opinion that the decomposition of the U-complex in the hydroxyl-containing solvents takes place by way of the intermediate formation of vinyl compounds. The information supplied by the authors does not answer the question as to which of the two reactions (conversion of the U-complex into I or into II) represents the first stage of the decomposition. However, the assumption of conversion of II into a vinyl compound proceeding more quickly than the acidolysis of II, and

Card 3/4

J1862

The Mechanism of the Reaction of Palladium Salts With Olefins in Hydroxyl-containing Solvents

\$/020/60/133/02/35/066 B016/B060

carbonyl compound attains 95-99%. It may be rather assumed that the charge of the nucleophilic particle attacking the C-atom of the olefin double bond does not play any essential part, and the addition of the HO ion takes place by reaction of the  $\pi$ -complex with the solvent molecules (2). Basic data on the mechanism of the decomposition of the  $\pi$ -complex can be obtained by studying the reaction between PdCl and the olefins in nonaqueous solutions. The authors' experiments revealed that the (PdCl<sub>2</sub>·C<sub>2</sub>H<sub>4</sub>)<sub>2</sub> complex(synthesized by the method devised by M. S.

Kharash (Ref. 3), which reacts instantaneously even with atmospheric moisture, remains unaltered in a glacial acetic solution for even 10 days. This complex is rapidly decomposed in solutions of ethyl- as well as benzoyl alcohol and phenol. Experiments conducted by the authors further revealed that palladium chloride in acetic acid solutions containing sodium acetate is reduced by ethylene according to equation (3). The yield of vinyl acetate(is 97% if referred to the reacted ethylene. The (PdCl2-C2H4)2 complex also reacts with sodium acetate in glacial acetic acid to form vinyl acetate. In the presence of substances capable of

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AUTHORS:

Moiseyev, I. I., Vargaftik, M. N., Syrkin, Ya. K., Corre-

sponding Member of the AS USSR

TITLE:

The Mechanism of the Reaction of Palladium Salts With

Olefins in Hydroxyl-containing Solvents

PERIODICAL:

Doklady Akademii nauk SSSR, 1960, Vol. 133, No. 2,

pp. 377-380

TEXT: In the authors' opinion, a participation of the HO ions in the reaction mentioned in the title appears to be little probable. Under the conditions mentioned in Ref. 1, the reaction of the m-complex with the HO ions is evidently accompanied by another reaction with the halide ions. This reaction leads to the formation of organohalogen compounds which are fairly stable under experimental conditions (the concentration

of Br  $^{-}$  or Cl  $^{-}$  was 10  $^{10}$   $^{-}$ 10  $^{12}$  times higher than the OH  $^{-}$  concentration, Ref. 1). Nevertheless, such a scheme does not explain satisfactorily the high selectivity of the oxidation process in which the yield of the

Card 1/4

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Mechanisms of Some Reactions With the Participation of Peroxides Box

5/074/60/029/04/01/005 8008/8014

 $\begin{bmatrix} R - C & 0 & \dots & H & C \\ 0 & 0 & 0 & 0 \\ 0 & C & C \end{bmatrix} \longrightarrow RCOOH + C & (Ref. 152), This scheme corresponds to$ 

the data on the stereospecificity of the reaction according to Prilezhayev (Ref. 153). The relative yields of the oxidation products are obviously dependent on the distribution of electron density in the free radical. The extraordinarily smooth course of this reaction can, however, hardly be explained only by means of the electron effect in the free radical. The reaction probably takes place via a photoactivated cyclic transitional complex (XCII):

C H, similar to the one suggested for the reaction of the phthaloy

peroxide. A study of the formation of  $\alpha$ -oxides in the alkaline oxidation of cisand trans-benzalacetones,  $\beta$ -methyl trans-benzalacetophenone, and other derivatives with hydrogen peroxide showed that this is not a stereospecific reaction. The data concerning this reaction do not contradict the assumption that it proceeds via an activated complex of the type (CII):

Card 6/7

Mechanisms of Some Reactions With the Participation of Peroxides

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confirmed by the high yield of corresponding acids. The resulting ester reacts according to either a molecular or a radical mechanism, depending on its structure. Besides molecular and radical reactions also the decomposition of the acyl peroxide itself is possible in the system acyl peroxide - alcohol. The ratio between the contributions of the molecular and the radical processes depends on temperature. The interaction between hydrogen peroxide and olefins may lead to different products, depending on the reaction conditions. (Refs. 10, 89, 90, 144-202). In the dark and without catalyst the reaction usually does not take place. The photosensitized reaction leads to the addition of hydrogen peroxide to the double bond. Besides this addition, decomposition of hydrogen peroxide in water and oxygen as well as oxidative side reactions are observable in this process. Oxidative side reactions proceed in the presence of carboxyl- and other functional groups in the olefin molecule. This reaction is likely to proceed like the hydrogenation of olefins that is catalyzed by acids.  $\alpha$ -oxides are formed on interaction between olefins and per acids (reaction according to Prilezhayev - Ref. 147). All experimental data may be explained by means of the transition stage (LXX):

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Mechanisms of Some Reactions With the Participation of Peroxides

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solvent and cannot be separated. When studying the oxidation of phenols with acyl peroxides (Refs. 49, 126-143), the authors found that the reaction is not catalyzed by acids and bases. The reaction rate depends on the nature of the solvent in a very complicated manner. Besides polarity, also the existence of hydrogen bonds appears to be of some importance. For the rules governing this reaction the authors suggested a mechanism according to which benzoyl peroxide and phenol react in the first stage, the slowest one, via the intermediate stage (LXV):

$$c_{6}H_{5}OH + (c_{6}H_{5}COO)_{2} \longrightarrow \begin{bmatrix} c_{6}H_{5} \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{bmatrix} \xrightarrow{C_{6}H_{5}OOCOC_{6}H_{5}} + c_{6}H_{5}COOH$$

It may be assumed that esters of per acids according to this scheme are also formed in reactions between acyl peroxides and alcohols. This assumption is Card 4/7

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Mechanisms of Some Reactions With the Participation of Peroxides

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experimental data (p. 442). The corresponding hydroperoxides are formed during the reaction of hydrogen peroxide with alcohole (Refs. 41, 84-92). Also this reaction is accompanied by disrupture of the alkyl-oxygen bond. The polarity of this bond is of great importance to the course of reaction. Presumably, the cyclic mechanism and mechanisms in which carbonium ions are formed compete with one another in this process. The thermal decomposition of per acids, esters of per acids, and acyl peroxides (Refs 49, 93-122) is accompanied by total or partial separation of CO<sub>2</sub> according to molecular mechanisms without free radicals participating in this reaction. It is often very difficult, sometimes even impossible, to distinguish the molecular reaction from the reaction of the radicals in the cage of the solvent. A few data obtained by means of optically active acylperoxides are indicative of a simultaneous occurrence of molecular and radical processes. In some cases, it is also possible that the individual processes compete with one another. The first stage of the decomposition reaction is presumably the decomposition of the molecule to form acyl-oxy radicals, as is the case with the noninitiated decomposition of benzoyl peroxide. The recombination of the radicals immediately after their formation is termed "primary recombination". In explaining the cage effect the authors refer to a paper by one of the authors mentioned in Ref. 125. This effect, which might be important to the mechanisms of several reactions in solutions, possibly consists in an interaction between two radicals or molecular fragments being in the cage, i.e., when they are surrounded by the Card 3/7

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Mechanisms of Some Reactions With the Participation of Peroxides

The rearrangement of 9-decalylperbenzoate (Refs. 11, 41-81) indicated the intramolecular character of this reaction. The following scheme was set up on the basis
of experimental data:

The elevation of the reaction rate is proportional to a pH of between 3 and 6. The corresponding acid and hydrogen peroxide are formed during the hydrolysis of a per acid (Refs 24, 70, 82). This reaction is accompanied by disrupture of the acyl-oxygen bond. The reaction rate is proportional to the concentration of hydrogen ions, but not to the acidity of the solution. The mechanism previously suggested for several hydrolytic reactions of organic esters makes it possible to explain Card 2/7

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S/074/60/029/04/01/005 B008/B014

AUTHORS:

Syrkin, Ya. K., Moiseyev, I. I.

TITLE:

Mechanisms of Some Reactions With the Participation of Peroxides

PERIODICAL:

Uspekhi khimii, 1960, Vol. 29, No. 4, pp. 425-469

TEXT: In the article under review, the authors describe their attempts to study a great number of reactions. They endeavored to find the mechanisms which correspond to the experiment or at least do not contradict it. They intended above all to clarify the role played by cyclic, activated complexes in reactions of peroxide compounds. First, they studied the exidation of ketones and aldehydes with per acids and hydrogen peroxide (Refs. 1-40). It was found that the reaction is nearly always a second-order reaction, and is catalyzed by acids. The mechanisms under consideration had one feature in common, i.e., the formation of intermediates by addition of the hydrogen peroxide to the carbonyl bond. It seems to be reasonable to assume that several exidation reactions of inorganic compounds also proceed via corresponding addition products. The authors established that the following scheme underlies the exidation mechanism:

Card 1/7

New Complexes of Palladium With Unsaturated Organic SOV/78-4-11-46/50
Ligands

of the bond with PdCl are made. A detailed report on further investigations in this field will follow. The authors thank
V. I. Belova for the measurements of magnetic susceptibility.
I. Yu. Kokoreva for the measurements of the dipole moments, and
Yu. G. Borod'ko for recording the infrared spectra. There is

SUBMITTED: July 9, 1959

Card 2/2

ROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900022-6

05893 SOV/78-4-11-46/50 5(2) Moiseyev, I. I., Fedorovskaya, E. A., Syrkin, Ya. K. AUTHORS: New Complexes of Palladium With Unsaturated Organic Ligands TITLE: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 11, PERIODICAL: pp 2641-2642 (USSR) Palladium chloride reacts with allyl alcohols in acidified ABSTRACT: aqueous solution to form the compound C3H5PdCl. At temperatures between 15 and 200, a yellow of -form develops which is stable up to 130°; at temperatures below 10°, the green /3-form develops which already decomposes at 50°, dissolved in benzene even at 25°. The Q-form is assumed to be identical with the compound Pd<sub>2</sub>Cl<sub>2</sub>.C<sub>6</sub>H<sub>10</sub> as described in reference 1. Both forms are diamagnetic. The allyl group seems to be capable of forming a special type of complex compounds which is also proved by the reaction of palladium chloride with mesityl oxide. A diamagnetic yellow substance PdClC<sub>6</sub> $H_{10}$ O develops which is stable up to 176°. Its infrared spectrum is discussed, and assumptions on the kind Card 1/2

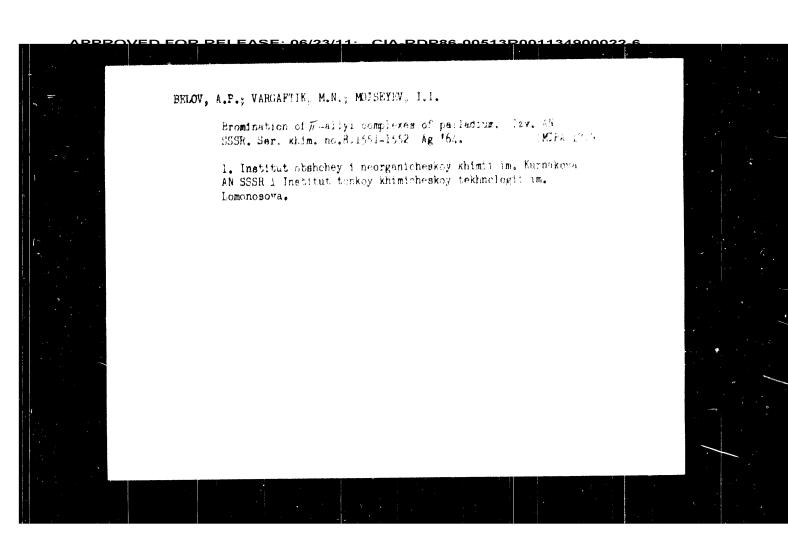
Mechanism of Organic Reactions Diene Synthesis'

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free mobility of 6 electrons in the cyclic pransition complex with little expenditure of energy, however, not in the biradical In the meeting of cyclic dienes and dienophils spatial configura tions are formed. Also in this case two possibilities exist. Forms tion of an endo- and an exo-configuration. Mainly endo-configuration is formed. Hitherto it has not been known why preference as given to endo-configuration. There exist several assumptions in this connection, however, each of them may only explain one fact others are in contradiction to them. Woodward assumes the finaltion of an inter-molecular donor-acceptor binding (Ref 32 to wee the participants in diene synthesis (longo linkage). Hudson and Robinson (Refs 36,37) assume the formation of a hyperbloom, Final . ly the authors arrived at the result that the double bonds play the most important part in the active complex. In the general case of diene synthesis it was therefore four: that it takes place over a 6-cyclic active complex. Alder had supressed this fact in a similar way: for the reaction of the reacsynthesis the presence of a hydrogen atom at a carbon atom with double bond is necessary and this double bond must be able to migrate. There are 3 tables and 54 references, 9 of which are S was

Card 2/2

Syrkin, Ya.K., Moiseyev, I.I. (Moscow) AUTHORS: Mechanism of Organic Reactions (Mekhanizmy organicheskikh TITLE: reaktsiy) Diene Synthesis (Diyenovyy sintez) PERIODICAL: Uspekhi khimii, 1958, Vol 27, Nr 11, pp 1321-1336 (USBR) ABSTRACT: In this paper various hypotheses on the course of the diene synthesis are investigated. Two courses were assumed: 1) Formation of a transition complex with open side-chain (biradical), or biradical and subsequent cyclization. 2) Formation of a cyclic transition complex. Computations of the activation energies necessary in any mase have proved that the intermediate formation of a biradical and the subsequent cyclization are energetically impossible (attempt of dimerization of butadiene and formation of cyclohexane from butadiene and acetylene. The activation energy of the formation of cyclohexane is higher than that of the dimerization of butadiene) (Table 1). Experiments carried out by Easler and Wassermann (Ref 3) confirmed the assumption of the cyclic transition complex. For the formation of a 6-cycle of two butadiene molecules Card 1/2 the cis-form of diene is necessary which is possible only at the



The Mechanisms of Organic Reactions. Hydrolysis and Esterification

1.174-27-6-4/6

these complexes play an important part in the reactions of hydrolysis. It must further be considered that in a number of cases it is possible that the reaction may develop by way of acyclic, open, and active complexes without the participation of carbon ions. There are 1 table and 61 references, 4 of which are Soviet.

- 1. Organic materials--Chemical reactions 2. Esters--Hydrolysis 3. Chemical reactions--Analysis

Card 3/3

The Lechanisms of Angania Godions.

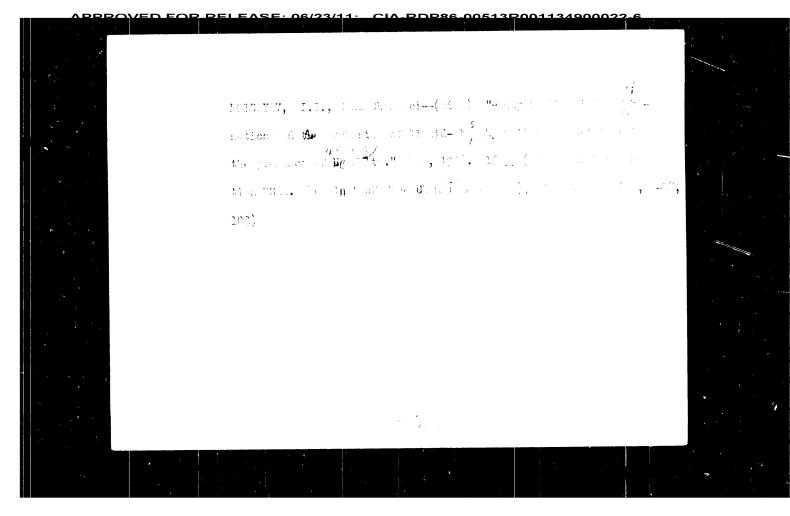
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The Lechanisms of Casanta Co. C. 104. Hydrolysis and Esterification

atages, (chick the referred to here we old, and, att, and the is discussed. Fro the reserve of . b. Winoherwood (.n.) whele vod) and his equipped fore ( of t, th) are mentioned and also cussed. Lention is also made of the natioles by . . . idea (reydler) and . ). tambakromer (lannakromer) (ser val): a .vertigation of the influence Exercises by the to vent of the Eydrolysic of the thirl cotile, Jerayo roulongte, well mile, proplementie, and lengtanillines of Virtion solds in like toand Acid Media". Mext, also other pertinent transitional oftuations in hydrolysis reactions are discussed. Rention in made also of the method of nuclear-magnetic rescented ( of be well as of facts connected with the influence every real substituents in the benzene ring upon the kinetics of the hydrolysis of benzoate ester (here 31, 51), as also of the de terminology (set a): Sitempt it explaining the reat of erved on the alkyl-oxygen acad. ammary: The material distracted in this article shows that the nyrotneses concerning unstable intermediate ions are as yet not confirming roll founded and must in most cases be revised. Besides, the part played by cyclical active complexes in the resolions of hydrolacis has hitherto been underescimated. It is, novever, cer. In that

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30V/14- 1-1-4 6 wrkin, ..., Moiseyev, 1. 1. odcow, AUTHORJ: The topy (bukhanions orm nicheskikh TTT. 1: The Jechani 1. of Returnistantiam | Simpliz i otenitirocktsiy) Word of the kotsiya) topekhi kai di, 1994, 70%, 97, 2004, 2004, 40, 71 (13.8) PERTODICE : Estarification . In droughly one that parts of one and the AB TEACT: . He equilibrium, riberators conclusions drawn with propert to the rechamman of one of takes reactions refer also to the mechanism of the other. The character of the hydrolysis and of the kinetic last governing the reaction depend on the structure of the data (which was subjected to hydrolysia) on the one hand, which she had on and on the cately zer on the other. This indicates the resibility of the existence of verious affroment mechanisms. 4. U. . May ( and and d. . . Throlld (insolld or its a forttempted some its lights Ingolfd (ingolfd or the to ditempted sold explain the experimental material framelysis a continuous elementary proce (x). The various stating as on and then enumerated. The walray of loss of the botal of hight of these Card 1/3



20-3-33/59

The Mechanism Underlying the Hydration of Olefines in the Water Solutions of Strong Acids.

stage amounts to -80-180+145+39+10= -66 kcal. For the solution of the question of the thermal effect of the second stage the knowledge of the formation heat of the C-ion from isobutylene and from proton is necessary. The C-ion proves to be more stable than the x-complex, and the transformation of the latter into the former takes place with an energy yield of more than 30 kcal. It is, however, necessary to assume that not the first, but the second stage is limited. Therefore these assumptions cannot be considered as proved. In the case of isobutylene the reaction process is possible because of the C-ion. This is, however, not possible since the lacking mutual transformation of 2-methylbutylene-2 and of 2-methylbutylene-1 in the case of insufficient dehydration eliminates the mechansims in the presence of the C-ion as an intermediate substance which is in equilibrium with the initial substances. If the reaction passes through an activated complex:-C-ion, the activation energies of isobutylene and propylene differ by about 15 kcal. In the experiment this difference amounts to 3,2 kcal. The authors consider a mechanism of this reaction in water solutions through a transition state (scheme I) to be more probable. They think it is essential that the proton-transfer-"stages"from H30+ to the olefine molecule and the alcoxonium -ion-formation and  $\hat{H}_{\chi}$ 0+ regeneration are combined in one single act. The consideration of the kinetic tasks is sometimes

Card 2/3

## APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900022-6

MoisEYEV, I. I. 20-3-33/59 Moiseyev, I.I., Syrkin, Ya.K., Corresponding Wember, AN USSR The Mechanism Underlying the Hydration of Olefines in the auter AUTHORS TITLE Solutions of Strong Acids. (O mekhanizme gidratatsii olefinov v vodnykh rastvorakh sil'nyk) kislot - Russian). Doklady Akademii Nauk, 1957, Vol 115, Nr 3, pp 541-544 (U.S.S.R.) PERIODICAL The hydration of butylene, triptane, trimethylethylene, and methyl-ABSTRACT cyclobutane in 1-5 M HNO3 solutions is subject to an equation of first order. Between the observed velocity constant of the reaction k and the acidity function Of Hammet H there is a dependence p-Ho= lg k+const,(I), the coefficient p being 1(0.98+1.11). The satisfying of this equation served as basis for the (here given) hydration mechanism of the olefines. The thermal effect of the first stage is composed of the following processes:a)proton desolvation -260, b)proton connection to the olefine under formation of a  $\pi$ complex  $\kappa_{\mathbf{X}}$ , c)"solvation" of the formed  $\pi$ -complex  $\kappa_{\mathbf{X}}$ , d) dissolwing of the water molecule + 10 cal bound to the proton. For the calculation of  $q_{\mathbf{X}}$  within the scale of the method MO IKAO(meaning cannot be deciphered), the knowledge of the resonance integral of the  $\gamma$  -binding between the atoms C and H in the  $\pi$ -complex is necessary. The J -value can be estimated by means of a measure analogous to that of Simonetta and Winstein. Approximative calculations of the energy yield in the proton connection to the double binding under the  $\pi$ -complex formation on the basis of various methods , ive values of from 20 to 39 kcal. Thus the thermal effect of the first Card 1/3 APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900022-6

AID P - 3569

Subject

: USSR/Chemistry

Card 1/1

Pub. 152 - 6/20

Authors

: Flid, R. M. and I. I. Moiseyev

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THE TAX OF THE PROPERTY OF THE

Title

: Interaction of some components of catalysts during the

liquid-phase hydration of acetylene

Periodical

: Zhur. prikl. khim., 28, 711-717, 1955

Abstract

The reactions of mercury and of sulfates of mercury with ferrous and ferric sulfates have been studied. The experiments were carried out at  $90-95^{\circ}$ C in sulfuric ac.d. The effect of  $S0_{\mu}$ —ion, aluminum sulfate and sodium sulfate on the voltage is determined, and the data compiled in tables. Six tables, 1 drawing, 10 references.

6 Russian (1946-1954).

Institution :

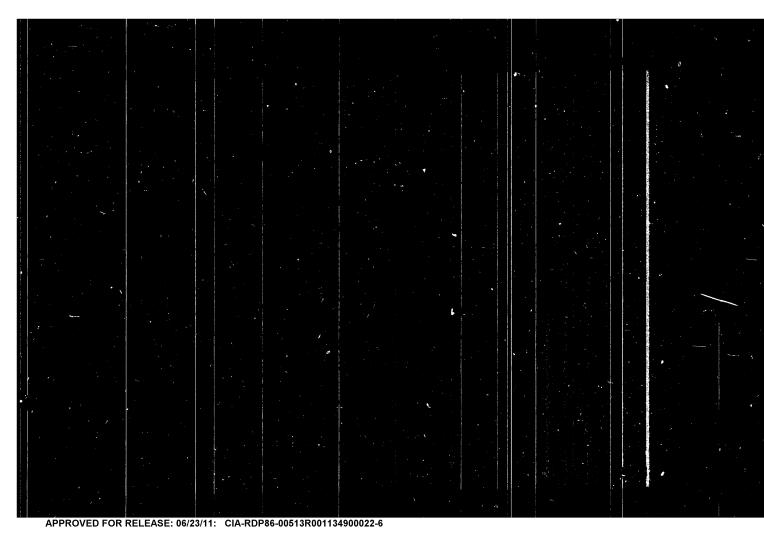
Moscow Institute of Fine Chemical Technology im. Lomonosov.

Chair of Technology of Basic Organic Synthesis

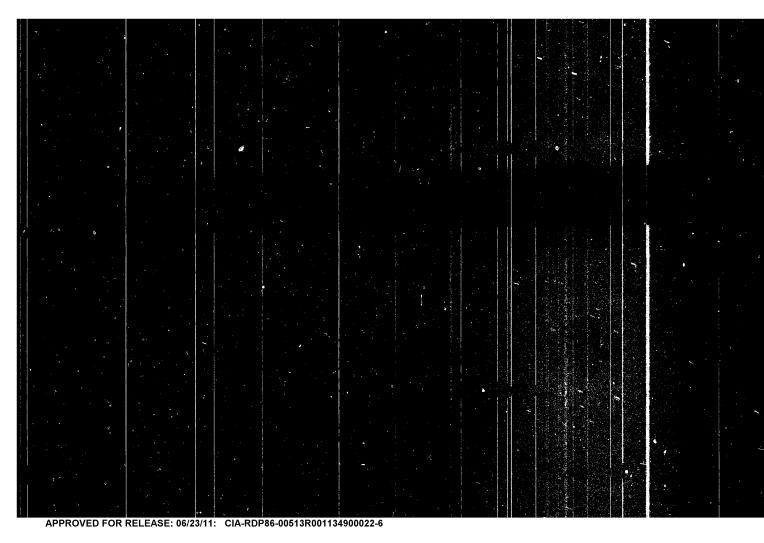
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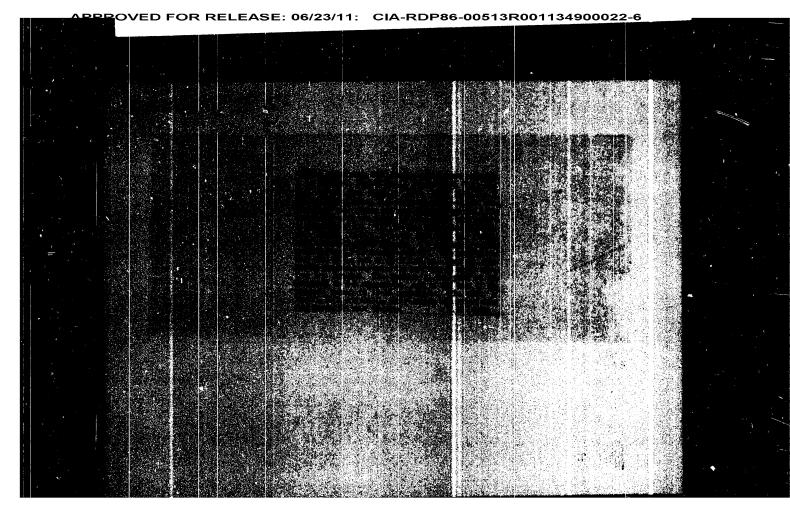
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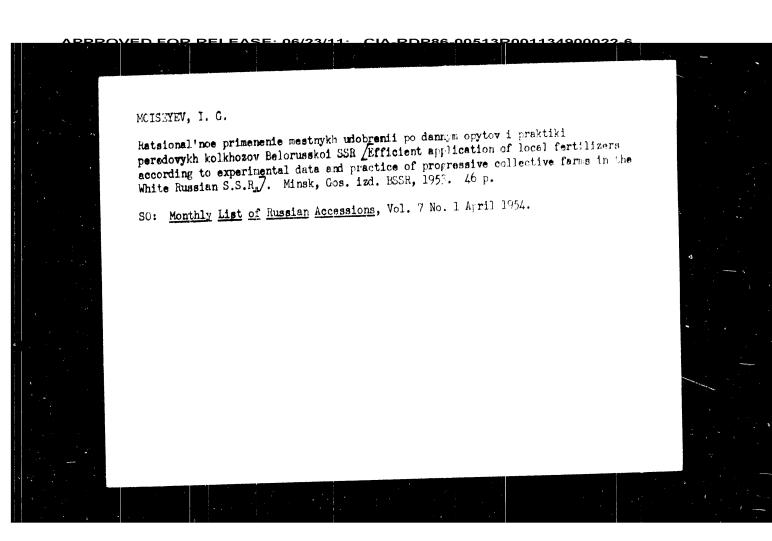


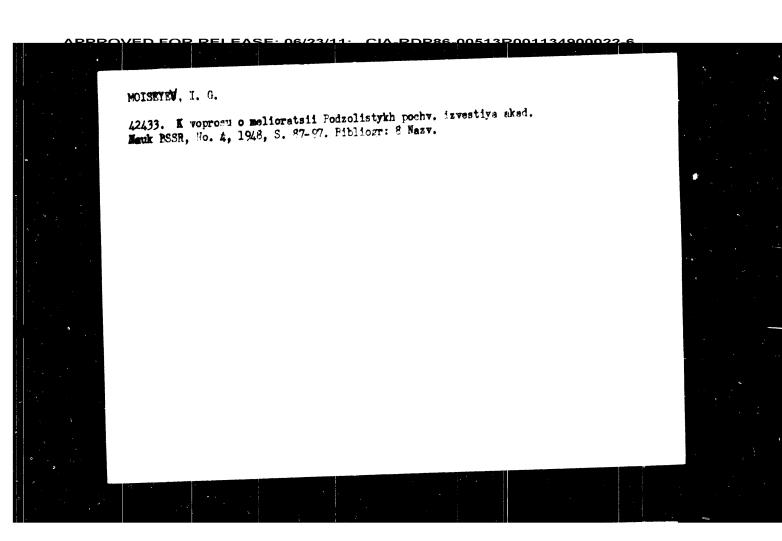
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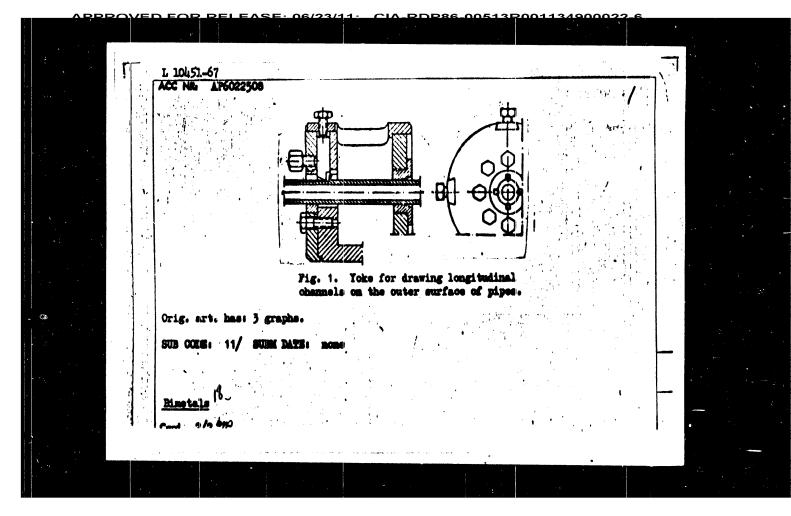


ROVED FOR-RELEASE: 06/23/11: CIA-RDP86-00513R001134900022-6 Abs Jour : Ref Zhur - Biol., No 10, 1958, No 43820 : Moiseyev I.G. Author : The Bielorussian Institute of Agriculture Inst : Ways of Increasing the Fertility of Peat Podzolic Soils Title Orig Pub: Zemledeliye, 1957, No 5, 59-63 Abstract; The results of 8-year long field tests are expounded which were made by the Bielorussian Institute of Agriculture on the strongly podzolized locss clay soil of Orshanskiy Rayon in Vitebskaya Oblast'. Poat-manure alkaline composts were tried out in double application during 9-field crop rotations with an overall dose of 50-85 t. per ha., and on individual plots with 28 t. of manure and 57 t. of the very same composts plus the addition of dolonite fertilizer and the mineral fertilizer N<sub>35</sub>P<sub>135</sub>K<sub>165</sub> [?]. The yield boosts obtained from 1 ha. over an average of 6 years were: winter rye 14.7 contners, perennial grass hay 56 centners and potatoes 141 centners. The absolute yteld of winter rye obtained on the average from 1 ha. was 31.2 centners. --N.N. Sokolov : 1/1 Card 16









EWT(m)/EWP(k)/EVP(t)/ETI IJP(c) JD/HW UR/0133/66/000/004/0348/0349 SOURCE CODE: AP6022508 AUTHORS: Kaufman, M. Sh.; Shaykevich, S. A.; Kolmogorov, V. L.; Gleyberg, A. S.; Aleshin, V. A.; Moisevev, G. P.; Vostrikov, C. A.; Likhtenshtepm, D. Ye.; Gasilov, V. V.; Kuznetsov, B. M.; Borisov, L. M. ORG: none TITLE: Manufacture of two-layer pipes with continuous longitudinal channels between layers SOURCE: Stal', no. 4, 1966, 348-349 TOPIC TAGS: pipe, steel, metal tube, metal forming ABSTRACT: A method for manufacturing double layer steel Kh18N10T pipes with continuous longitudinal channels between the layers was developed. Two methods for the production of channels on the outer surface of the inner pipe were investigated -- a rolling method and a cutting method. A schematic of the experimental installation is presented (see Fig. 1). It was found that both methods yielded pipes with smooth surfaces and uniform inner channels between the layers. The overall rate of pipe production, employing the cutting or drawing method, was 200 meters/hour. Double layer pipes having a diameter from 17 to 45 mm have been produced industrially. The following people took part in the experimental work: P. S. Ryshikov, M. A. Fedotovskiy, A. F. Hichkov, To. I. Tikhonov, and Ya. S. Grinberg. WO: 669-714-35

CIA-RDP86-00513R001134900022-6

ACC NR: AP6018388

Fig. 1. Use of the plasticity \$\psi\$ during short-set drawing of pipes of steels 20 (a), 45 (b), 30km626 (c), and khl8NLOT (d); numbers on the curves correspond to the change in pipe diameter \$\psi\_1/\dot{d}\_0\$ as a result of drawing. \$S\_0 = ratio of elongation coefficients.

production cycle, resulting in considerable as inge in production costs. Orig. SUB COIE: 11/ SUBM DATE: none/ OTH REF: OO1

Cord. \$\frac{1}{2}\$ \text{ Q} \text{ Subm DATE: none/ OTH REF: OO1}